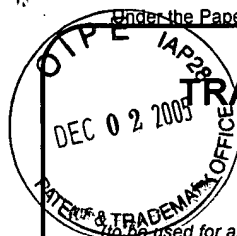


TFW 2833

PTO/86/21 (09-04)

Approved for use through 07/31/2006. OMB 0651-0031  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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# TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

|  |                      |                  |
|--|----------------------|------------------|
| Total Number of Pages in This Submission | Application Number   | 09/547,561       |
|  | Filing Date          | April 12, 2000   |
|  | First Named Inventor | Mathieu et al.   |
|  | Art Unit             | 2833             |
|  | Examiner Name        | Alexander Gilman |
| Attorney Docket Number                   |                      | P98-US           |

## ENCLOSURES (Check all that apply)

|  |  |  |
|--|--|--|
| <input type="checkbox"/> Fee Transmittal Form<br><input type="checkbox"/> Fee Attached<br><input type="checkbox"/> Amendment/Reply<br><input type="checkbox"/> After Final<br><input type="checkbox"/> Affidavits/declaration(s)<br><input type="checkbox"/> Extension of Time Request<br><input type="checkbox"/> Express Abandonment Request<br><input type="checkbox"/> Information Disclosure Statement<br><br><input type="checkbox"/> Certified Copy of Priority Document(s)<br><input type="checkbox"/> Reply to Missing Parts/ Incomplete Application<br><input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53 | <input type="checkbox"/> Drawing(s)<br><input type="checkbox"/> Licensing-related Papers<br><input type="checkbox"/> Petition<br><input type="checkbox"/> Petition to Convert to a Provisional Application<br><input type="checkbox"/> Power of Attorney, Revocation<br><input type="checkbox"/> Change of Correspondence Address<br><input type="checkbox"/> Terminal Disclaimer<br><input type="checkbox"/> Request for Refund<br><input type="checkbox"/> CD, Number of CD(s) _____<br><input type="checkbox"/> Landscape Table on CD | <input type="checkbox"/> After Allowance Communication to TC<br><input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences<br><input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)<br><input type="checkbox"/> Proprietary Information<br><input type="checkbox"/> Status Letter<br><input checked="" type="checkbox"/> Other Enclosure(s) (please identify below):<br>Request for Reconsideration of Holding of Abandonment |
| Remarks  |  |  |

## SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

|              |                      |          |        |
|--------------|----------------------|----------|--------|
| Firm Name    | Kirtan & McConkie    |          |        |
| Signature    |                      |          |        |
| Printed name | N. Kenneth Burraston |          |        |
| Date         | November 30, 2005    | Reg. No. | 39,923 |

## CERTIFICATE OF TRANSMISSION/MAILING

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Signature

Typed or printed name

Erin Cowles

Date

November 30, 2005

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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**CERTIFICATE OF TRANSMISSION/MAILING**

Ref. No.: 12439-0186

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Erin Cowles

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Appl. No. : 09/547,561  
Applicant : Mathieu et al.  
Filed : April 12, 2000  
TC/A.U. : 2833  
Examiner : Alexander Gilman

Confirmation No. 6320

Docket No. : P98-US

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**REQUEST FOR RECONSIDERATION  
OF HOLDING OF ABANDONMENT**

To Whom It May Concern:

Applicants respectfully request reconsideration and withdrawal of the holding of abandonment in the Notice of Abandonment mailed November 2, 2005 (hereinafter the "Notice of Abandonment") in the above-identified patent application on the grounds that there is no abandonment in fact. (See MPEP § 711.03.)

The only grounds for abandonment stated in the Notice of Abandonment was failure to file a proper reply to the non-final Office Action mailed on April 4, 2005. In fact, however, Applicants filed a timely and proper reply by facsimile transmission on August 3, 2005 (hereinafter the "Reply"). The Reply consisted of 17 pages and included all of the following documents: a facsimile transmission cover sheet, a Transmittal Form, a Fee Transmittal form, a Credit Card Payment form, a nine-page Amendment, a Petition For Extension Of Time requesting a one month extension of time, a General Authorization To Charge Deposit Account, and a General Authorization/Petition For Extension Of Time. The foregoing Reply—a copy of which is attached hereto as Exhibit A—constitutes a proper and timely replay to the non-final Office Action mailed April 4, 2005.

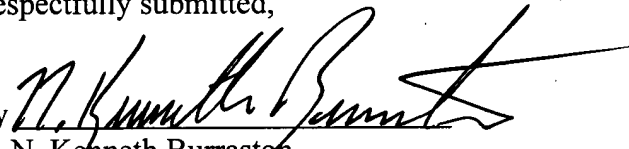
As evidence that the Reply was transmitted by facsimile to the USPTO on August 3, 2005, Applicants point to the certificates of transmission/ mailing on the Fee Transmittal, the Amendment, and the Petition For Extension Of Time. As evidence that the Reply was received by the USPTO at the USPTO's central facsimile number of (571) 273-8300, Applicants identify the Communications Result Report attached hereto as Exhibit B. As indicated near the top, the Communications Result Report shows transmission of the 17-page Reply at 9:30am on August 3, 2005 to facsimile number (571) 273-8300 and identifies the result of the transmission as "OK."

In summary, Applicants in fact filed a timely and proper response to the Office Action mailed April 4, 2005 in the form of the 17-page Reply attached hereto as Exhibit A, and that Reply was in fact received by the USPTO at the central facsimile number of (571) 273-8300 on April 3, 2005. Applicants therefore assert that there is no abandonment in fact and, accordingly, respectfully request withdrawal of the holding of abandonment.

Respectfully submitted,

Date: November 30, 2003

By

  
N. Kenneth Burraston  
Reg. No. 39,923

Kirton & McConkie  
1800 Eagle Gate Tower  
60 East South Temple  
P.O. Box 45120  
Salt Lake City, Utah 84111-1004  
Telephone: (801) 323-5934  
Fax: (801) 321-4893

Attachments:

Exhibit A  
Exhibit B



# KIRTON & McCONKIE

TELEPHONE (801) 328-3600  
FACSIMILE (801) 321-4893

A PROFESSIONAL CORPORATION  
1800 EAGLE GATE TOWER  
60 EAST SOUTH TEMPLE  
P.O. BOX 45120  
SALT LAKE CITY, UTAH 84145-0120

## FACSIMILE TRANSMISSION SHEET

DATE: August 3, 2005

BILLING #: 12439.186

TO: Examiner Alexander Gilman  
Commissioner for Patents

FAX #: (571) 273-8300

FROM: N. Kenneth Burraston

17 NUMBER OF PAGES INCLUDING COVER SHEET

COMMENTS:

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12439-0186

PTO/SB/21 (09-04)

Approved for use through 07/31/2008. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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# TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission

Application Number 09/547,561

Filing Date April 12, 2000

First Named Inventor Mathieu, et al.

Art Unit 2833

Examiner Name Alexander Gilman

Attorney Docket Number P98-US

## ENCLOSURES (Check all that apply)



Fee Transmittal Form



Fee Attached



Amendment/Reply



After Final



Affidavits/declaration(s)



Extension of Time Request



Express Abandonment Request



Information Disclosure Statement



Certified Copy of Priority Document(s)

Reply to Missing Parts/  
Incomplete ApplicationReply to Missing Parts  
under 37 CFR 1.52 or 1.53

Drawing(s)



Licensing-related Papers



Petition

Petition to Convert to a  
Provisional ApplicationPower of Attorney, Revocation  
Change of Correspondence Address

Terminal Disclaimer



Request for Refund



CD, Number of CD(s) \_\_\_\_\_

☐ Landscape Table on CD

After Allowance Communication to TC

Appeal Communication to Board  
of Appeals and InterferencesAppeal Communication to TC  
(Appeal Notice, Brief, Reply Brief)

Proprietary Information



Status Letter

Other Enclosure(s) (please identify  
below):General Authorization To Charge Deposit  
AccountGeneral Authorization/Petition For Extension  
Of Time

Remarks

## SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name

Kirtan &amp; McConkie

Signature

Printed name

N. Kenneth Burraston

Date

August 3, 2005

Reg. No.

39,923

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Signature

Typed or printed name

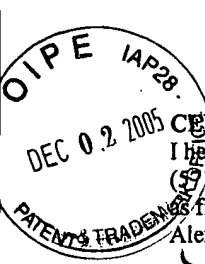
Erin Cowles

Date

August 3, 2005

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Erin Cowles

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Appl. No. : 09/547,561  
Applicant : Mathieu et al.  
Filed : April 12, 2000  
TC/A.U. : 2833  
Examiner : Alexander Gilman

Confirmation No. 6320

Docket No. : P98-US

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**FEE TRANSMITTAL**

To Whom It May Concern:

**1. Total Fee Paid: \$120.00**

**2. Method of Payment:**

☐ Check ☒ Credit Card ☐ Money Order ☐ Other ☐ None  
☐ Deposit Account

Account Number 500843  
Account Name Kirton & McConkie

The Director is authorized to: (check all that apply)

☐ Charge fee(s) indicated below ☒ Credit overpayments  
☒ Charge any additional fee(s) or any underpayment of fee(s)

to the above-identified deposit account.

**3. Fee For Extra Claims:**

| Extra Claims              |    |       |   |   | Fee/Claim | Fee Paid |
|---------------------------|----|-------|---|---|-----------|----------|
| Total Claims              | 31 | - 81* | = | 0 | x         | 50 = 0   |
| Indp. Claims              | 1  | - 3** | = | 0 | x         | 200 = 0  |
| Multiple Dependent Claims |    |       |   |   | x         | 360 = 0  |

\* 20 or highest number of total claims previously paid for.

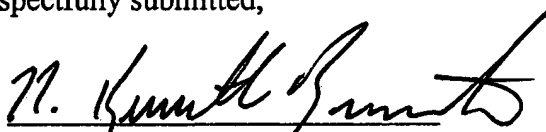
\*\* 3 or highest number of independent claims previously paid for.

**4. Additional Fees:**

| Fee Description                             | Fee Paid |
|---|----------|
| Surcharge – late filing fee or oath (\$130) |          |
| Extension of one month (\$120)              | 120      |
| Extension of two months (\$450)             |          |
| Extension of three months (\$1020)          |          |
| Extension of four months (\$1590)           |          |
| Extension of five months (\$2160)           |          |
| Notice of Appeal (\$500)                    |          |
| Filing appeal brief (\$500)                 |          |
| Request for oral hearing (\$1000)           |          |
| Submission of IDS (\$180)                   |          |
| Record patent assignment (\$40)             |          |
| RCE (\$790)                                 |          |
| Fee for Terminal Disclaimer (\$130)         |          |
| Other:                                      |          |

Respectfully submitted,

Date: August 3, 2005

By   
N. Kenneth Burrastop  
Reg. No. 39,923

Kirton & McConkie  
1800 Eagle Gate Tower  
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**CERTIFICATE OF TRANSMISSION/MAILING**

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*Erin Cowles*  
Erin Cowles

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Appl. No. : 09/547,561  
Applicant : Mathieu et al.  
Filed : April 12, 2000  
TC/A.U. : 2833  
Examiner : Alexander Gilman

Confirmation No. 6320

Docket No. : P98-US

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**AMENDMENT**

To Whom It May Concern:

In response to the Office Action of April 4, 2005, the shortened statutory period for response to which has been extended to August 4, 2005 by the accompanying Petition For Extension Of Time, please amend the above-identified application as follows:

**Amendments to the Claims** are reflected in the list of claims that begins on page 2 of this paper.

**Remarks/Arguments** begin on page 7 of this paper.



**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

Claim 1 (Currently amended): An interconnection element comprising:

a first element material adapted to be coupled at a first end to a substrate, a second end of the first element being releasable from the substrate; and

a second different element material coupled to the first element material,

wherein one of the first element material and the second element material ~~comprises a material having a property that may be transformed~~ is transformable in response to an external stimulus applied to ~~one of the first and second element materials such that upon transformation, a geometric shape of the interconnection element is modified to a shape suitable for use as an interconnection element, and wherein the interconnection element has an overall thickness greater than 1  $\mu\text{m}$  such that, while the second end of the first element material is released from the substrate, the interconnection element has a first geometric shape before application of the external stimulus and a second geometric shape after application of the external stimulus, and the second geometric shape is different than the first geometric shape.~~

Claim 2 (Original): The interconnection element of claim 1, wherein the interconnection element is of a size suitable for directly contacting a semiconductor device.

Claim 3 (Currently amended): The interconnection element of claim 1, wherein a transformation of the one of the first element material and the second element material is ~~irreversible~~ permanent such that, after removal of the external stimulus, the interconnection element does not return to the first geometric shape.

Claim 4 (Currently amended): The interconnection element of claim 1, wherein ~~the property is such that a first volume of one of the first element material and the second element material is adapted to be transformed to a different second volume~~ application of the external stimulus to the one of the first element material or the second element material changes a volume of the one of the first element material or the second element material.

Claim 5 (Currently amended): The interconnection element of claim 4, wherein ~~the first element material and the second element material are arranged in a configuration such that the second element material overlies the first element material and, in response to the external stimulus, the first volume of the second element material is greater than the second volume~~ increases.

Claim 6 (Currently amended): The interconnection element of ~~claim 4~~ claim 1, wherein the first element material is thermally stable and ~~a transformation of the second element material from the first volume to the second volume is a result of exposing the second element material to the~~ external stimulus comprises heat.

Claim 7 (Currently amended): The interconnection element of ~~claim 6~~ claim 4, wherein the second volume comprises about 90 percent of the first volume of the second element material application of the external stimulus to the one of the first element material or the second element material decreases a volume of the one of the first element material or the second element material.

Claim 8 (Currently amended): The interconnection element of claim 1, wherein each of the first element material and the second element material ~~have a~~ is transformable property in response to an external stimulus.

Claim 9 (Previously Presented)      The interconnection element of claim 1, wherein at least one of the first element material and the second element material are introduced by plating.

Claim 10 (Original): The interconnection element of claim 1, wherein at least one of the first element material and the second element material are introduced by sputtering.

Claim 11 (Original): The interconnection element of claim 1, wherein at least one of the first element material and the second element material are introduced by electroless plating.

Claim 12 (Original): The interconnection element of claim 3, wherein the first element material comprises palladium or its alloy.

Claim 13 (Previously Presented)      The interconnection element of claim 4, wherein the first element material is an alloy comprising palladium/cobalt and an activation layer comprises one of copper and nickel.

Claim 14 (Original): The interconnection element of claim 13, wherein the second element material further comprises nickel.

Claim 15 (Original): The interconnection element of claim 13, wherein the second element material comprises a nickel alloy.

Claim 16 (Currently amended): The interconnection element of claim 1, wherein the one of the first element material and the second element material ~~comprises a shape memory alloy~~ changes shape to a previously defined shape in response to the external stimulus.

Claim 17 (Currently amended): The interconnection element of claim 16, wherein the second element material ~~comprises the shape memory alloy~~ changes shape to a previously defined shape in response to the external stimulus, and the second element material overlies the first element material.

Claim 18 (Currently amended): The interconnection element of claim 1, wherein ~~the property is a stress and the transformation reduces the magnitude of the stress of the material~~ one of the first element material and the second element material comprises an inherent stress and the external stimulus reduces the inherent stress.

Claim 19 (Currently amended){ ~~The interconnection element of claim 18, wherein the first element material comprises the material having the property and the second element material has the inherent stress comprises a tensile stress, wherein upon transformation, the deformation comprises a response to the tensile stress of the second element material.~~

Claim 20 (Currently amended): ~~The interconnection element of claim 19, wherein the second element material is thermally stable and a transformation of the first element material is a result of exposing the first element material to~~ external stimulus comprises heat.

Claim 21 (Currently amended): ~~The interconnection element of claim 18, wherein the first element material comprises the material having the property and the second element material has the inherent stress comprises a compressive stress, wherein upon transformation, the deformation comprises a response to the compressive stress of the second element material.~~

Claims 22-82 (Canceled)

Claim 83 (Currently amended): The interconnection element of claim 1, wherein the overall thickness of the interconnection element is between 1 and 500  $\mu\text{m}$ .

Claim 84 (Currently amended): The interconnection element of claim 1, wherein the overall thickness of the interconnection element is greater than 25  $\mu\text{m}$ .

Claim 85 (Currently amended): The interconnection element of claim 1, wherein the overall thickness of the interconnection element is about 28  $\mu\text{m}$ .

Claim 86 (Previously presented): The interconnection element of claim 1, wherein the first element material has a thickness between 1 and 3  $\mu\text{m}$ .

Claim 87 (Previously presented): The interconnection element of claim 1, wherein the first element material has a thickness of about 5  $\mu\text{m}$  and the second element material has a thickness between about 3 and 6  $\mu\text{m}$ .

Claim 88 (Previously presented): The interconnection element of claim 1, wherein the first element material has a thickness between about 12 and 25  $\mu\text{m}$ .

Claim 89 (New): The interconnection element of claim 1, wherein the overall thickness of the interconnection element is greater than 1  $\mu\text{m}$ .

Claim 90 (New): The interconnection element of claim 1, wherein the one of the first element material and the second element material changes size to a previously defined size in response to the external stimulus.

Claim 91 (New): The interconnection element of claim 90, wherein the second element material changes size to a previously defined size in response to the external stimulus, and the second element material overlies the first element material.

Claim 92 (New): The interconnection element of claim 1, wherein the interconnection element is electrically conductive, and while in the second geometric shape, a free end of the interconnection element is disposed to contact an electronic component and thereby provide an electrical connection between the substrate and the electronic component.

### REMARKS/ARGUMENTS

Claims 1, 3-8, 16-21, and 83-85 are amended, and claims 89-92 are newly added. Claims 22-82 were previously canceled. Claims 1-21 and 83-92 are now pending in the application. Applicants respectfully request reexamination and reconsideration of the application.

Claims 7 and 60 were rejected under 35 USC § 112, 1<sup>st</sup> paragraph on the grounds that the specification does not enable those claims. Claim 60 was not pending in the application at the time of the Office Action. Applicants therefore assume that the rejection of claim 60 was an error. With regard to claim 7, Applicants assert that the specification includes sufficient information for a person of ordinary skill to make and use of the invention of claim 7 without undue experimentation, which is the standard for determining compliance with the first paragraph of section 112. (See MPEP § 2164.01.) Nevertheless, claim 7 has been amended to clarify the claim (not for reasons of patentability), which Applicants believe moots the rejection of claim 7.

Claims 1-15, 18-21, and 83-89 were rejected under 35 USC § 103(a) as obvious in view of U.S. Patent No. 5,613,861 to Smith et al. ("Smith I") and U.S. Patent No. 5,979,892 to Smith ("Smith II"). In addition, claims 12, 13, 16, and 17 were rejection under 35 USC § 103(a) as obvious in view of Smith I and Smith II in combination with one of U.S. Patent No. 5,832,601 to Eldridge et al. ("Eldridge") or U.S. Patent No. 5,810,609 to Faraci et al. ("Faraci"). Applicants respectfully traverse these rejections.

Claim 1 is directed to an "interconnection element" that comprises "a first element material" and "a second element material." A first end of the first element material can be coupled to a substrate, and a second end of the first element material can be released from the substrate. An external stimulus transforms at least one of the first element material or the second element material, causing the interconnection element to change from a first geometric shape to a second geometric shape. As expressly stated in claim 1, the "one of the first element material and the second element material" that transforms in response to the external stimulus—and thus changes the shape of the interconnection element—responds to the external stimulus *"while the second end of the first element material is released from the substrate."*

Thus, unlike Smith I, the structure of the interconnection element of claim 1 is such that the external stimulus that causes the change from the first geometric shape to the second geometric shape may be applied any time *after* releasing the second end of the first element

material from the substrate. In contrast, Smith I's contact structure 15 is not made of a material that responds to an external stimulus to change the geometric shape of the contact structure *after* an end of metal layer 16 is released from substrate 14. (See Smith I Figures 10-13.) Indeed, no external stimulus is relied on; rather, as shown in Figures 10 and 11 of Smith I, releasing the metal layer 16 from the substrate 14 causes metal layer 16 to immediately pop up (as shown in Figure 11). Smith I thus lacks an element material that responds to an external stimulus after the second end of the first element material is released from the substrate, as recited in claim 1. Smith II, which was relied on in the Office Action as allegedly teaching a thickness in excess of one micrometer, does not make up for this deficiency in Smith I, nor does Eldridge or Faraci.

For all of the foregoing reasons, claim 1 patentably distinguishes over the combination of Smith I, Smith II, Eldridge, and Faraci, whether taken individually or in combination.

Claims 2-21 and 83-92 depend from claim 1 and are therefore also patentable over the prior art of record. Moreover, claims 2-21 and 83-92 recite further features not taught or suggested by the prior art.

For example, claim 4 states that the external stimulus changes a volume of the one of the first element material or the second element material. The volume of metal layer 16 is not changed in Smith I, nor does any of the other prior art of record teach or suggest a material that changes volume in response to an external stimulus. All of the prior art of record thus fails to teach or suggest the additional features of claim 4.

As another example, claim 6 states that the external stimulus is heat. Smith I's teaching that metal layer 16 may be deposited by thermal evaporation describes one method by which metal layer 16 may be formed. That teaching says nothing about an external stimulus for transforming the metal layer 16 after an end of the metal layer 16 has been released from substrate 14. Smith I, as well as the other prior art of record, fails to teach or suggest the use of heat as the external stimulus as recited in claim 6.

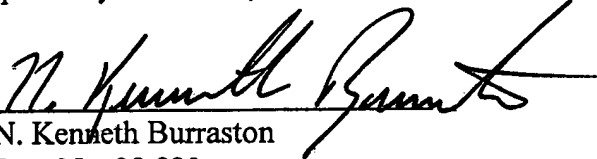
As yet other examples, claim 8 states that both the first element material and the second element material are transformable in response to an external stimulus, and claim 16 states that the one of the first element material and the second element material changes shape to a previously defined shape in response to the external stimulus. None of the prior art record teaches or suggests such features. Claims 8 and 16 are thus further patentable over the prior art of record.

Claims 12 and 13 recite the use of "palladium or its alloy" and "palladium/cobalt," respectively. In the Office Action, the foregoing requirements of claims 12 and 13 are dismissed as mere "alternative material[s]" disclosed in Eldridge. Applicants respectfully submit, however, that the features of claims 12 and 13 cannot be dismissed as mere "alternative material[s]." In some probing applications, palladium, palladium/cobalt, and other palladium alloys provide advantages not found in other materials. For example, in some probing applications, the use of palladium, palladium/cobalt, or other palladium alloys provide superior wear characteristics. These materials are thus not mere alternative material choices but represent improvements in the art. Because the prior art lacks motivation or a suggestion to combine Eldridge's teachings regarding the use of palladium and its alloys with Smith I's and Smith II's spring contact structures, the rejection of claims 12 and 13 should be withdrawn.

In view of the foregoing, Applicants submit that all of the claims are allowable and the application is in condition for allowance. If the Examiner believes that a discussion with Applicants' attorney would be helpful, the Examiner is invited to contact the undersigned at (801) 323-5934.

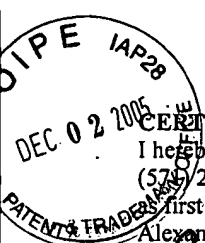
Respectfully submitted,

Date: August 3, 2005

By   
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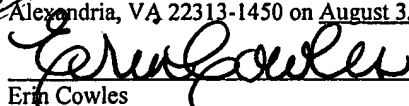


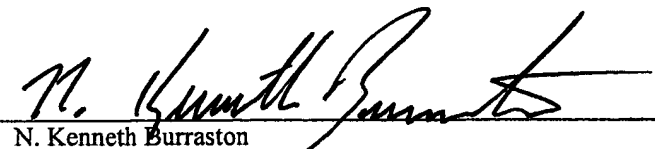


**CERTIFICATE OF TRANSMISSION/MAILING**

Rel. No.: 12439-0186

I hereby certify that this correspondence is being facsimile transmitted to the USPTO at (570) 273-8300 or deposited with the United States Postal Service with sufficient postage in first class mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on August 3, 2005.

  
Erin Cowles

| <b>PETITION FOR EXTENSION OF TIME UNDER 37 CFR 1.136(a)<br/>FY 2005</b>   |            | Docket Number (Optional) P98-US |          |  |            |                         |  |   |       |      |          |  |       |       |    |  |        |       |    |   |        |       |    |   |        |        |    |
|---|------------|---------------------------------|----------|--|------------|-------------------------|--|---|-------|------|----------|--|-------|-------|----|--|--------|-------|----|---|--------|-------|----|---|--------|--------|----|
| Application Number: 09/547,561  |            | Filed: April 12, 2000           |          |  |            |                         |  |   |       |      |          |  |       |       |    |  |        |       |    |   |        |       |    |   |        |        |    |
| For: Shaped Spring  |            |                                 |          |  |            |                         |  |   |       |      |          |  |       |       |    |  |        |       |    |   |        |       |    |   |        |        |    |
| Art Unit: 2833  |            | Examiner: Alexander Gilman      |          |  |            |                         |  |   |       |      |          |  |       |       |    |  |        |       |    |   |        |       |    |   |        |        |    |
| <p>This is a request under the provisions of 37 CFR 1.136(a) to extend the period for filing a reply in the above identified application.</p> <p>The requested extension and fee are as follows (check time period desired and enter the appropriate for below):</p> <table border="0" style="width:100%"><thead><tr><th></th><th style="text-align:center"><u>Fee</u></th><th colspan="2" style="text-align:center"><u>Small Entity Fee</u></th></tr></thead><tbody><tr><td><input checked="" type="checkbox"/> One month (37 CFR 1.17(a)(1))</td><td style="text-align:right">\$120</td><td style="text-align:right">\$60</td><td style="text-align:right">\$120.00</td></tr><tr><td><input type="checkbox"/> Two month (37 CFR 1.17(a)(2))</td><td style="text-align:right">\$450</td><td style="text-align:right">\$225</td><td style="text-align:right">\$</td></tr><tr><td><input type="checkbox"/> Three month (37 CFR 1.17(a)(3))</td><td style="text-align:right">\$1020</td><td style="text-align:right">\$510</td><td style="text-align:right">\$</td></tr><tr><td><input type="checkbox"/> Four month (37 CFR 1.17(a)(4))</td><td style="text-align:right">\$1590</td><td style="text-align:right">\$795</td><td style="text-align:right">\$</td></tr><tr><td><input type="checkbox"/> Five month (37 CFR 1.17(a)(5))</td><td style="text-align:right">\$2160</td><td style="text-align:right">\$1080</td><td style="text-align:right">\$</td></tr></tbody></table> <p><input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27.</p> <p><input type="checkbox"/> A check that includes the fee is enclosed.</p> <p><input checked="" type="checkbox"/> Payment by credit card. Form PTO-2038 is attached.</p> <p><input type="checkbox"/> The Director has already been authorized to charge fees in this application to a Deposit Account.</p> <p><input checked="" type="checkbox"/> The Director is hereby authorized to charge any fees which may be required, or credit any overpayment, to Deposit Account Number <u>50-0843</u>.</p> <p><b>WARNING:</b> Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.</p> <p>I am the <input type="checkbox"/> applicant/inventor</p> <p><input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed (Form PTO/SB/96)</p> <p><input checked="" type="checkbox"/> attorney or agent of record. Registration Number <u>39,923</u></p> <p><input checked="" type="checkbox"/> attorney or agent under 37 CFR 1.34. Registration Number <u>39,923</u></p> <div style="display:flex; justify-content:space-between; margin-top:20px"><div><br/>N. Kenneth Burraston</div><div style="text-align:right"><u>August 3, 2005</u><br/>Date<br/><br/><u>(801) 323-5934</u><br/>Telephone Number</div></div> <p>NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.</p> <p><input type="checkbox"/> Total of _____ forms are submitted.</p> |            |                                 |          |  | <u>Fee</u> | <u>Small Entity Fee</u> |  | <input checked="" type="checkbox"/> One month (37 CFR 1.17(a)(1)) | \$120 | \$60 | \$120.00 | <input type="checkbox"/> Two month (37 CFR 1.17(a)(2)) | \$450 | \$225 | \$ | <input type="checkbox"/> Three month (37 CFR 1.17(a)(3)) | \$1020 | \$510 | \$ | <input type="checkbox"/> Four month (37 CFR 1.17(a)(4)) | \$1590 | \$795 | \$ | <input type="checkbox"/> Five month (37 CFR 1.17(a)(5)) | \$2160 | \$1080 | \$ |
|   | <u>Fee</u> | <u>Small Entity Fee</u>         |          |  |            |                         |  |   |       |      |          |  |       |       |    |  |        |       |    |   |        |       |    |   |        |        |    |
| <input checked="" type="checkbox"/> One month (37 CFR 1.17(a)(1))   | \$120      | \$60                            | \$120.00 |  |            |                         |  |   |       |      |          |  |       |       |    |  |        |       |    |   |        |       |    |   |        |        |    |
| <input type="checkbox"/> Two month (37 CFR 1.17(a)(2))  | \$450      | \$225                           | \$       |  |            |                         |  |   |       |      |          |  |       |       |    |  |        |       |    |   |        |       |    |   |        |        |    |
| <input type="checkbox"/> Three month (37 CFR 1.17(a)(3))  | \$1020     | \$510                           | \$       |  |            |                         |  |   |       |      |          |  |       |       |    |  |        |       |    |   |        |       |    |   |        |        |    |
| <input type="checkbox"/> Four month (37 CFR 1.17(a)(4))   | \$1590     | \$795                           | \$       |  |            |                         |  |   |       |      |          |  |       |       |    |  |        |       |    |   |        |       |    |   |        |        |    |
| <input type="checkbox"/> Five month (37 CFR 1.17(a)(5))   | \$2160     | \$1080                          | \$       |  |            |                         |  |   |       |      |          |  |       |       |    |  |        |       |    |   |        |       |    |   |        |        |    |



12439-0186

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Appl. No. : 09/547,561  
Applicant : Mathieu et al.  
Filed : April 12, 2000  
TC/A.U. : 2833  
Examiner : Alexander Gilman

Confirmation No. 6320

Docket No. : P98-US

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**GENERAL AUTHORIZATION TO CHARGE DEPOSIT ACCOUNT**

To Whom It May Concern:

Throughout prosecution of the above-identified patent application, and pursuant to 37 C.F.R. § 1.25(b), where no check is received by the Commissioner, Applicants authorize and request the Commissioner to charge all fees due at any time during the pendency of the above-identified application (or to credit any overpayment) to Deposit Account No. 50-0843, account name Kirton & McConkie (Order No. 12439-0186).

Respectfully submitted,

Date: August 3, 2005

By N. Kenneth Burraston  
N. Kenneth Burraston  
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12439-0186

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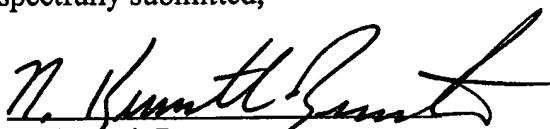
**GENERAL AUTHORIZATION/PETITION FOR EXTENSION OF TIME**

To Whom It May Concern:

Throughout prosecution of the above-referenced patent application, and pursuant to 37 C.F.R. § 1.136(a)(3), Applicants authorize and request the Commissioner to treat any correspondence requiring a petition for extension of time as containing a request for the required extension of time. Where no check is received by the Commissioner, the Commissioner is hereby authorized to charge payment of the requisite petition fees (or credit any overpayment) to Deposit Account No. 500843, account name Kirton & McConkie (Order No. 12439-0186).

Respectfully submitted,

Date: August 3, 2005

By   
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(B)

\* \* \* COMMUNICATION RESULT REPORT ( AUG. 3. 2005 ( 7AM ) \* \* \*

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TO: Examiner Alexander Gilman  
Commissioner for Patents

FAX #: (571) 273-8300

FROM: N. Kenneth Burraston

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